Merritt Parkway, Cutspring Road Bridge
Spanning Cutspring Road at the 35.51 mile mark
on the Merritt Parkway
Stratford
Fairfield County
Connecticut

HAER No. CT-127

PHOTOGRAPHS

WRITTEN HISTORICAL AND DESCRIPTIVE DATA

Historic American Engineering Record
National Park Service
U.S. Department of the Interior
P.O. Box 37127
Washington, D.C. 20013-7127

HISTORIC AMERICAN ENGINEERING RECORD

Merritt Parkway, Cutspring Road Bridge

HAER No. CT-127

Location:	Spanning Cutspring Road at the 35.51 mile mark on the Merritt Parkway in Stratford, Fairfield County, Connecticut UTM: 18.656625.4566675 Quad: Bridgeport, Connecticut
Construction Date:	August 1940
Engineer:	Connecticut Highway Department
Architect:	George L. Dunkelberger, of the Connecticut Highway Department, acted as head architect for all Merritt Parkway bridges.
Contractor:	Edward E. Bray Construction Company Bridgeport, Connecticut
Present Owner:	Connecticut Department of Transportation Wethersfield, Connecticut
Present Use:	Used by traffic on the Merritt Parkway to cross Cutspring Road
Significance:	The bridges of the Merritt Parkway were predominately inspired by the Art Deco and Art Moderne architectural styles of the 1930s. Experimental forming techniques were employed to create the ornamental characteristics of the bridges. This, combined with the philosophy of incorporating architecture into bridge design and the individuality of each structure, makes them distinctive.
Historians:	Todd Thibodeau, HABS/HAER Historian Corinne Smith, HAER Engineer August 1992

For more detailed information on the Merritt Parkway, refer to the Merritt Parkway History Report, HAER No. CT-63.

LOCAL HISTORY

In spring 1639, sixty-five settlers came to Cupheag (now Stratford) on the west bank of the Housatonic River where it meets the Long Island Sound. This group migrated from Wethersfield, led by the Reverend Adam Blakeman.[1]

As the town grew, land was bought from the surrounding Indian tribes until the community stretched twelve miles long and ten miles wide. In 1685, Stratford received its town patent from the Colonial Government of Connecticut. The community retained its original boundaries until 1789 when Huntington was granted civic independence; Trumbull separated in 1797, Bridgeport in 1821, and Monroe in 1823. The present town covers an area of nineteen-and-one-half square miles.[2]

Early Stratford was primarily a shipping and fishing center. The community was also the main crossing point for the Housatonic River. A ferry operated on the river from 1648 until the first bridge was built in 1795.[3]

The New York, New Haven and Hartford Railroad reached town in 1850. The railroad failed to bring manufacturing enterprises, but did encourage the summer-vacation industry. At the same time, the buying and selling of real estate became big business in Stratford.

The railroad also helped neighboring Bridgeport develop into a manufacturing center. Even though Bridgeport developed rapidly, Stratford remained primarily a residential community. The town's population started to increase in the 1880s as industrial workers from Bridgeport moved to

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[1]Dorothy Euerle, "History of Stratford, 1637-1989," (Manuscript, Stratford Public Library Vertical File).

[2]Euerle, 2.

[3]"Stratford, the Unhurried Town," (Manuscript, Stratford Public Library Vertical File, 1959), 2.

Stratford, to escape the noise and pollution within that city. This migration increased after 1890, when the Bridgeport Horse Car Company introduced service to Stratford. Within five years ridership warranted extending and electrifying the line.[4]

When plans for the Merritt Parkway were first announced, Stratford residents were upset by the route, which called for the road to cut south into their downtown before linking up with the Post Road/U.S. Route 1, and crossing the Housatonic River on the Washington Bridge. They realized the congestion this would create in their community and campaigned for a second bridge spanning the Housatonic.[5] In 1938 the state obtained federal funding to build the Housatonic River Bridge. After completion the parkway does not appear to have had a dramatic impact on Stratford. The town was already a bedroom community for Bridgeport, and too far from New York City to attract a high number of commuters.

BRIDGE CONSTRUCTION HISTORY

Cutspring Road starts just north of the parkway at Pumpkin Ground Road, it then proceeds south to Main Street in Stratford. The Peter Mitchell Construction Company of Greenwich, CT, received the contract to grade the Merritt Parkway from Cutspring Road, in Stratford, to the Housatonic River. While the Cutspring Road Bridge is located within this section of the Merritt, the grade separation and bridge contract went to the Edward E. Bray Construction Company of

[4]"Stratford, the Unhurried Town," 4.

[5]Helen Binney Kitchel, "Story of the Merritt," Greenwich Press, 28 April 1938, p. 15.

Bridgeport, CT (ConnDot project #180-140).[6] The bridge cost $36,374 and was under construction from March 9, 1940, to the fall of that year. The paving work for this region of the Merritt also extended from Cutspring Road to the Housatonic River. This contract was awarded to the Osborn-Barnes Construction Company of Danbury, CT (ConnDot project #180-170). The Cutspring Road Bridge has received little maintenance since it was built. Over the years some spalling concrete has been removed and replaced.[7]

BRIDGE DESCRIPTION

The Cutspring Road Bridge is a single-span, reinforced- concrete, barrel-type rigid-frame bridge. The frame spans 48'-2-1/4" at a skew of 5°-7'-45" over the 45' wide roadway. Parallel wing walls, 35' long, form the approach for the overpass. The Merritt Parkway travels over the bridge on a clear roadway 82'-6" wide.

The rigid-frame design allows the engineer to decrease the structural material at the center of the span, thus forming an arched opening. (See the Merritt Parkway History Report, HAER No. CT-63, for a more detailed description of the rigid-frame.) The intrados of the span rises 3' from the springline to the crown, while the extrados remains horizontal from the knee to the crown. The frame thickness at the crown is 18". The outside of the knee is notched, and the inside of the knee is a corner with an obtuse angle. The frame leg thickness increases from 3' at the base to 4'-6" at the knee. The exposed face of the legs remains vertical, and the hidden face slopes away from the

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[6]Contract Card File, Map File and Engineering Records Department, Connecticut Department of Transportation, Wethersfield, CT.

[7]Cutspring Road Bridge, DOT #757; Bridge Maintenance File, Engineering Department, Connecticut Department of Transportation, Newington, CT.

roadway. The minimum clearance provided is over 12' at a distance 10' from the centerline of the roadway.

The drawings specify that, as individual elements, the frame and wing walls were to be poured monolithically above the reinforced-concrete footings. Expansion joints, 1/2" wide, filled with cork and 16-ounce copper flashing, occur between the frame and the wing walls. This expansion joint also occurs between the railing over the bridge span and the pylons.

The Cutspring Road Bridge is detailed simply with a classically-influenced balustrade and decorative bands. A large white cast-stone block with the Connecticut coat of arms acts as the center post of the handrail. Reverse molds have formed rosettes on the wide railing for the passengers of the parkway. These rosettes, however, are hidden by the addition of a W-rail guardrail inside the railing. The wide, smooth pylons are flanked by narrow bands of rectangles that also form a coping band across the spandrel and the wing walls. Presently, longitudinal reinforcing steel on the underside of the arch is exposed.

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Kitchel, Helen Binney. "Story of the Merritt." Greenwich Press. April 28, 1938, p. 15.

-------. "Stratford, the Unhurried Town." Manuscript, Stratford Public Library Vertical File, 1959.

-------. Contract Card File. Map File and Engineering Records Department, Connecticut Department of Transportation: Wethersfield, CT. This includes construction drawings, copies of which are in the HAER field records.

-------. Bridge Maintenance File. Engineering Department, Connecticut Department of Transportation: Newington, CT.

PROJECT INFORMATION

This recording project was undertaken by the Historic American Buildings Survey and the Historic American Engineering Record (HABS/HAER) Division of the National Park Service, Robert J. Kapsch, Chief. The Merritt Parkway recording project was sponsored and funded by the Connecticut Department of Transportation (ConnDot) and the Federal Highway Administration.

The fieldwork, measured drawings, historical reports and photographs were prepared under the general direction of Eric N. DeLony, HAER Chief, and Sara Amy Leach, HABS Historian.

The recording team consisted of Jacqueline A. Salame (Columbia University), architect and field supervisor; Mary Elizabeth Clark (Pratt Institute) and B. Devon Perkins (Yale University), architectural technicians; Joanne McAllister-Hewlings (US/ICOMOS-Great Britain, University of Sheffield), landscape architect; Corinne Smith (Cornell University), engineer; Gabrielle M. Esperdy (City University of New York) and Todd Thibodeau (Arizona State University), historians; and Jet Lowe, HAER photographer.